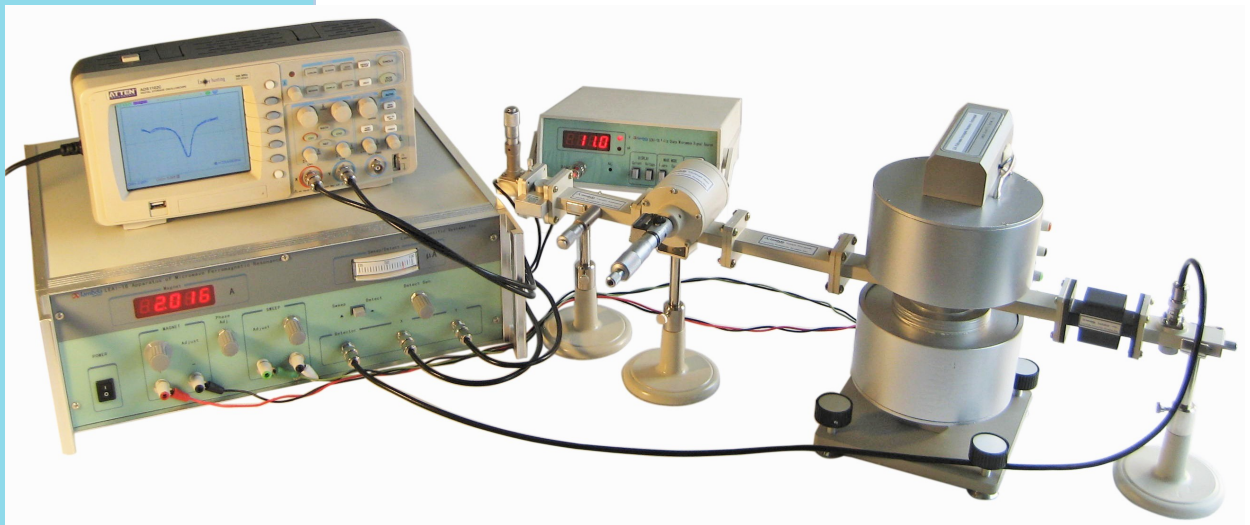


# LEAI-16 Microwave Ferromagnetic Resonance - Complete Model



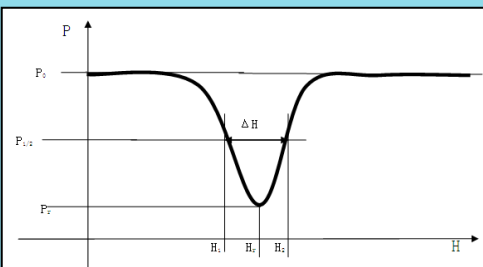
**Note:** oscilloscope not included

- Simple structure with stable performance
- Ample experimental examples
- Affordable

Ferromagnetic resonance (FMR) is an important topic in magnetism even in solid state physics. It is the basis of microwave ferrite physics. Microwave ferrite has important applications in radar and microwave communications. This microwave ferromagnetic resonance apparatus is an experimental instrument for measuring the ferromagnetic resonance curve of ferromagnetic samples.

Using this unit, the following experiments can be conducted:

1. Observe microwave ferromagnetic resonance phenomena of ferromagnetic materials.
2. Measure ferromagnetic resonance line width ( $\Delta H$ ) of microwave ferrite materials.
3. Measure the Lande's  $g$ -factor of microwave ferrite.
4. Learn how to use a microwave experimental system.



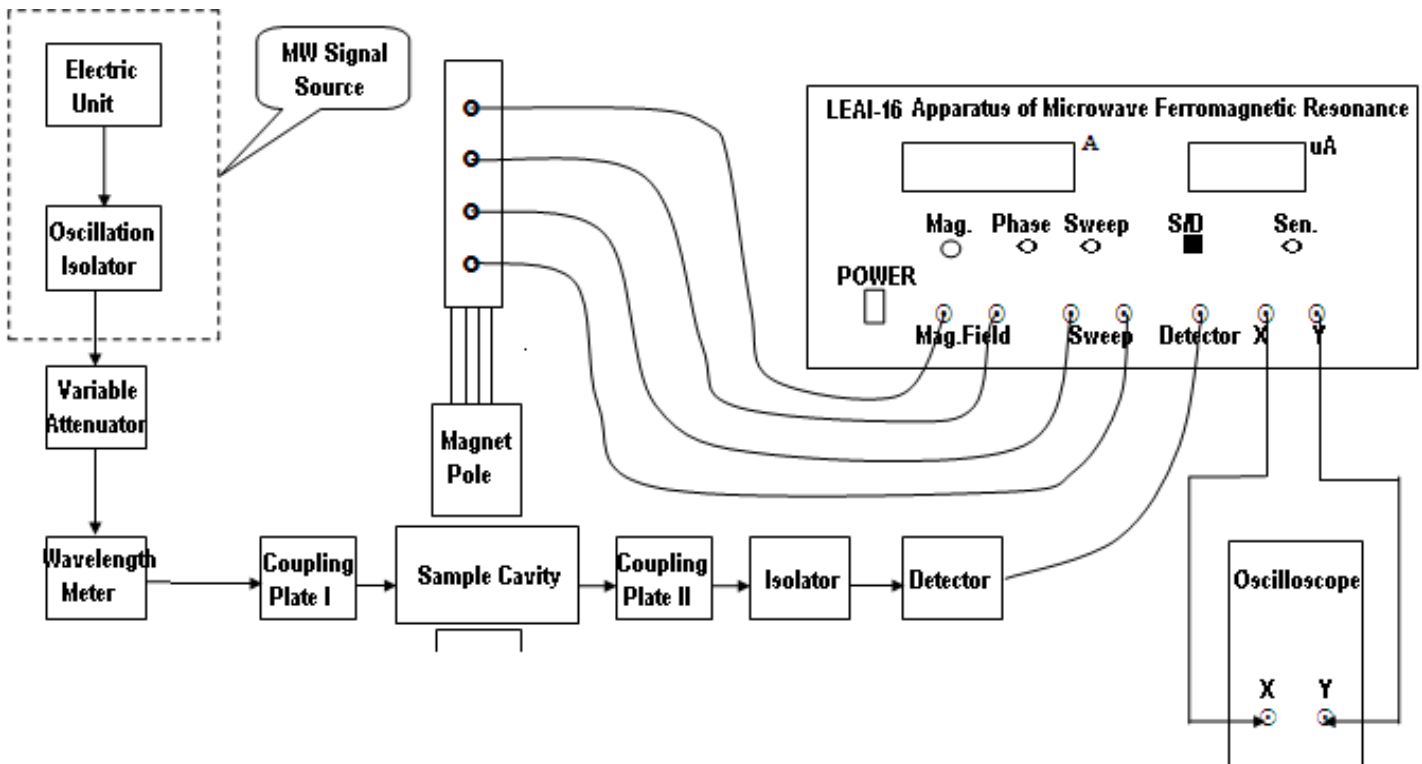
Relationship curve between P and H

## Specifications

|                                |                            |
|--------------------------------|----------------------------|
| <b>Microwave System:</b>       |                            |
| Sample                         | 1 mono-crystal             |
| Microwave frequency meter      | range: 8.6 GHz ~ 9.6 GHz   |
| Waveguide dimensions           | inner: 22.86 mm × 10.16 mm |
| <b>Electromagnet:</b>          |                            |
| Input voltage and accuracy     | Max: ≥ 20 V, 1% ± 1 digit  |
| Input current range & accuracy | 0 ~ 2.5 A, 1% ± 1 digit    |
| Stability                      | ≤ 1x10 <sup>-3</sup> +5 mA |
| Strength of magnetic field     | 0 ~ 400 mT                 |
| <b>Sweep Field:</b>            |                            |
| Output voltage                 | ≥ 6 V                      |
| Output current range           | 0.2 A ~ 0.7 A              |

## Part List

|                            |       |
|----------------------------|-------|
| Electronic Controller Unit | 1     |
| Magnet                     | 1     |
| Support Base               | 3     |
| Microwave System           | 1 set |
| Sample                     | 1     |
| Cable                      | 1 set |
| Instructional Manual       | 1     |



Block diagram of experimental system

**Note: above product information is subject to change without notice.**